

# Technology Staff Network Configuration, Secure Browser Installation, and Device Set Up

October 22, 2019

# Housekeeping

- If you have problems hearing the presentation, dial in on a telephone. Dial-in information:
  - in the *Meeting Information* icon at the top-left of the screen
  - in your registration email
- Dialing in for audio is recommended for best sound quality.
- All attendees' lines have been muted due to the high number of participants.
- For questions or comments, use the “Q&A” function.

# Objectives

Today's session will cover the following topics:

- STAAR Online Testing Platform (SOTP) Overview
- Reference Materials
- Preparation: Network and Technical Infrastructure
- SOTP Installation
- Guidance for Technology Staff

# STAAR Online Testing Platform Overview

# Secure Online Platform Overview

- Students access their STAAR tests through the STAAR Online Testing Platform.
- The STAAR Online Testing Platform supports a wide variety of desktops, laptops, and network configurations. System support includes virtual networks and thin client environments, as well as other common network configurations.
- All network communications use the Internet Protocol (IP) Suite. The Local Area Network (LAN) must route IP traffic to and from the Internet.
- All workstations where tests are administered must have reliable Internet connectivity.

# Secure Online Platform Overview

## Requirements

- Stable, high-speed Internet connection(s) (wired or wireless)
- Appropriate bandwidth

**NOTE:** Updated Secure Browsers were released for the 2019–2020 school year. Districts **must** uninstall prior versions of the SOTP for Windows, Mac OS, and Linux before installing the latest updated version (3.14.0).

# Staff Coordination

- Planning the technology components for online testing requires close coordination and collaboration among the following:
  - District Testing Coordinators
  - Campus Testing Coordinators
  - Information technology/technology coordinator(s)

# Reference Materials



# Reference Materials: Technology Resources

- Website
  - <http://TexasAssessment.gov/administrators/technology/>
- STAAR Online Testing Resources
  - [Unified Minimum System Requirements for the Administration of Online Assessments](#)
  - [STAAR Online Testing Platform Technology Guide](#)
  - [Online Readiness Tools](#)

# Reference Materials: Technology Resources

Resources for system requirements and network, hardware, and secure browser configurations for running various testing applications used for all Texas testing programs.

## STAAR Grades 3-8 and EOC

STAAR Assessment Management System User's Guide

STAAR Assessment Management System User Roles Permissions Matrix for Interim and Summative Assessments

## STAAR Online Testing Platform Secure Browsers

For Windows®

For Mac OS® (.pkg)

For Chromebook™

For iPad®

For Ubuntu® Linux (.deb package)

Linux-deb-64-bit

**TEXAS ASSESSMENT** FOR FAMILIES FOR ADMINISTRATORS & EDUCATORS EN ESPAÑOL

**TECHNOLOGY SYSTEMS AND SUPPORT**

- STAAR Grades 3-8 and EOC**
  - STAAR Assessment Management System User's Guide
  - STAAR Assessment Management System User Roles Permissions Matrix for Interim and Summative Assessments
- Interim Assessments**
  - Interim Assessments User Manual
  - STAAR Assessment Management System User Roles Permissions Matrix for Interim and Summative Assessments
- STAAR Online Testing Platform Resources**
  - STAAR Online Testing Platform Technology Guide
  - STAAR Online Testing Platform Local Caching Software (LCS) District Guide
  - Online Readiness Tools
  - Quick Guide to Online Testing (PDF)
- STAAR Online Testing Platform Secure Browser**
  - For Windows®
  - For Mac OS® (.pkg)
  - For Chromebook™
  - For iPad®
  - For Ubuntu® Linux (.deb package)
  - Linux-deb-64-bit
- STAAR Alternate 2, TELPAS, and TELPAS Alternate Assessment Management Systems**
  - Training Modules for the STAAR Alternate 2, TELPAS, and TELPAS Alternate Assessment Management Systems
  - STAAR Alternate 2, TELPAS, and TELPAS Alternate Assessment Management Systems User's Guide
  - User Roles and Permissions for the STAAR Alternate 2, TELPAS, and TELPAS Alternate Assessment Management Systems (PDF)
  - Installable TestNav (for Windows, Mac, Linux, Fedora, and Ubuntu, iPad, Android, and Chromebook) and ProctorCache Installers (for Windows and Mac)
  - STAAR Alternate 2, TELPAS, and TELPAS Alternate Assessment Management Systems Training Site
  - TestNav 8 Online Support
- All Assessment Programs**
  - Consolidated Accountability File (CAF) (PDF)
- Unified Specifications**
  - Unified Minimum System Requirements for the Administration of Online Assessments
- System Upload File Formats**
  - 2019-2020 Student Registration Header Template
- System File Formats**
  - 2019-2020 Data File Format for Student Registration (PDF)
- Texas Assessment Data Portal**
  - Student Portal Help Guide (PDF)
  - Teacher Portal Help Guide (PDF)
  - Analytic Portal Help Guide (PDF)
  - Data Interaction Hardware and Software Requirements (PDF)

## STAAR Online Testing Platform Resources

STAAR Online Testing Platform Technology Guide

STAAR Online Testing Platform Local Caching Software (LCS) District Guide

Online Readiness Tools

Quick Guide to Online Testing (PDF)

## System Upload File Formats



2019-2020 Student Registration Header Template

## System File Formats

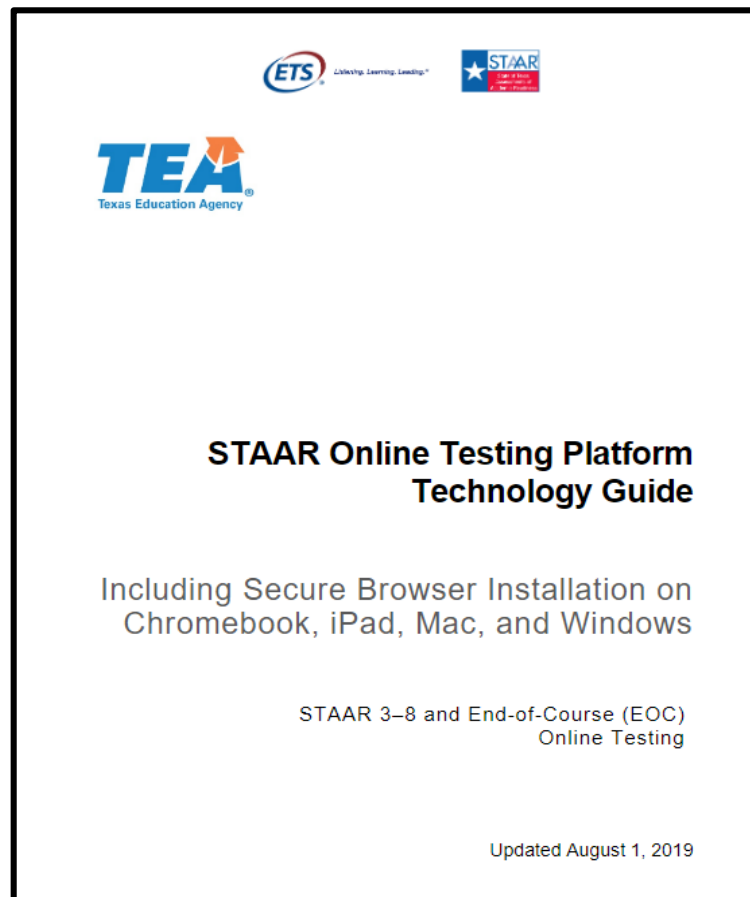
2019-2020 Data File Format for Student Registration (PDF)

# Reference Materials: Unified Minimum System Requirements

- Identifies minimum system hardware requirements
  - Device
  - Operating Systems
  - Processors
  - Memory (RAM)
  - Minimum Screen Size & Resolution
  - Keyboard and Headphones

 	
<h2>Unified Minimum System Requirements for the Administration of Online Assessments</h2>	
<p>The following specifications apply to all Texas student assessment program online assessments administered in the 2019-2020 school year.</p>	
Common Specifications for the Administration of All Online Testing (STAAR, STAAR Alternate 2, TELPAS, TELPAS Alternate)	
Devices	Desktops: Windows, Mac OS X, Linux Laptops: Windows, Mac OS X, Linux Chromebooks Tablets: iPad – 5 <sup>th</sup> and 6 <sup>th</sup> Generation, Windows tablets except Windows RT
Operating Systems	Windows: 7*, 8.1, 10 (Windows 10 S is not supported at this time) Chrome OS: (Release Channel only, current or near-current release) Mac OS X: 10.13, 10.14 iOS: 12 Linux Ubuntu: 18.04
Processors	Windows: Intel x86 (32 or 64 bit) Chrome OS: Any Mac OS X: Intel-based models iOS: Any Ubuntu: Intel Architecture - 64 bit only
Memory (RAM)	Windows: 2 GB (4 GB recommended) Chrome OS: 2 GB minimum (4 GB recommended) Mac OS X: 2 GB (4 GB recommended) iOS: 1 GB (2 GB recommended) Linux: 1 GB (2 GB recommended)
Minimum Screen Size	9.5 inches for all devices
Minimum Screen Resolution	1024 x 768 for all devices <b>NOTE:</b> Most displays require no scaling. Windows sets display scale to 100%. On devices with higher-resolution displays (e.g. Surface devices and 4K monitors), disable high DPI scaling: Right-click the STAAR Online Testing Platform shortcut, then check "Disable display scaling on high DPI settings" in <i>Properties &gt; Compatibility</i> .
Keyboard	Physical keyboard required for assessments with essays. Wired keyboard and mouse are strongly recommended.
Headphones	Headphones or earbuds recommended for assessments with audio content.

# Reference Materials: SOTP Technology Guide



# Reference Materials: STAAR Technology Readiness Checklist

☑	Action Item	Preparation Timeline	Information Resource
<input type="checkbox"/>	<b>Step 1:</b> Verify that the network meets the requirements, is configured for testing, and can connect to the Internet. Conduct network diagnostics to confirm sufficient bandwidth.	Can begin immediately.	STAAR Assessment Management System Technology Guide <a href="#">Section 1</a>
<input type="checkbox"/>	<b>Step 2:</b> Verify that all of the computers used for online testing meet the minimum hardware and software requirements.	Can begin immediately.	STAAR Assessment Management System Technology Guide <a href="#">Section 2</a>
<input type="checkbox"/>	<b>Step 3:</b> Ensure the correct version of the Secure Browser is installed on all testing devices.	3 to 4 weeks before testing begins.	STAAR Assessment Management System Technology Guide <a href="#">Section 3</a>
<input type="checkbox"/>	<b>Step 4:</b> Determine if the local network would benefit from the LCS. Install the LCS and configure testing computers to connect to the LCS.	3 to 4 weeks before testing begins.	STAAR Assessment Management System Technology Guide <a href="#">Section 4</a>
<input type="checkbox"/>	<b>Step 5:</b> Take a practice test from each testing device (using a student network or device login as necessary.)	3 to 4 weeks before testing begins.	STAAR Assessment Management System Technology Guide <a href="#">Section 3</a>
<input type="checkbox"/>	<b>Step 6:</b> For Windows computers, disable Fast User Switching.	2 to 3 weeks before testing begins.	STAAR Assessment Management System Technology Guide <a href="#">Section 3</a>
<input type="checkbox"/>	<b>Step 7:</b> For Mac computers, disable Spaces in Mission Control.	2 to 3 weeks before testing begins.	STAAR Assessment Management System Technology Guide <a href="#">Section 3</a>
<input type="checkbox"/>	<b>Step 8:</b> Ensure that all applications, except those identified as necessary by the technology staff, are uninstalled from testing computers.	1 to 2 weeks before testing begins.	
<input type="checkbox"/>	<b>Step 9:</b> Shutdown any automatic updates during testing window.	1 to 2 weeks before testing begins.	
<input type="checkbox"/>	<b>Step 10:</b> During the testing window, ensure staff availability to follow up internally on any technical issues that may arise.	Ongoing throughout the testing window.	

The Technology Readiness Checklist is available in the [STAAR Online Testing Platform Technology Guide](#).

# Preparation: Network and Technical Infrastructure

# Hardware Requirements

## OPERATING SYSTEMS AND HARDWARE VERSIONS

- Chrome – 63.0 – 76.0
- Apple - OSX 10.13; 10.14
- iPads - 5th Generation and higher / iOS 12
- Windows - 7, 8.1, 10
- Windows Tablets - All except Windows RT
- Linux - Ubuntu 16.04
- Secure Web Browser - 3.14.0(Desktop) / 2.75.0(iOS) / 2.62.0 (Chrome) / TestNav 8

# Network Settings

Network configuration settings should include all the elements noted below.

- Configure the content filters, firewalls, and proxy servers to allow traffic on the protocols and to the servers listed in [Section 1.7](#)
- Session timeouts on proxy servers and other devices should be set to at least 35 minutes. This will help limit interruptions during testing.
- Content caching must be disabled.

If the client network uses any devices that perform traffic shaping, packet prioritization, or Quality of Service, the URLs specified in [Appendix A](#) must be used.

- This guarantees the highest level of performance.
- These URLs must be open or whitelisted.



# Network and Technical Infrastructure

- Ensure Hardware is in place and meets system requirements.
  - [Unified Minimum System Requirements for the Administration of Online Assessments](#) (UMSR)
  - [STAAR Online Testing Platform Technology Guide](#)
- If using Virtual Machines, ensure that the virtual machine resources meet the UMSR guidelines.
- Ensure that network devices (routers, access points, etc.) don't time out or reset connections automatically.

# Network and Technical Infrastructure

- If the district's network uses network traffic management techniques, then the domains below should be given high-priority settings.
- Ensure content filters are disabled for the IPs and URLs.

Site	URL
Portal	<a href="http://texasassessment.gov/">http://texasassessment.gov/</a>
STAAR Assessment Management System	<a href="https://tx-toms.ets.org/">https://tx-toms.ets.org/</a>
Online Testing (for configuration use only)	<a href="https://tx-tss.caltesting.org/">https://tx-tss.caltesting.org/</a>
Technology Systems and Supports	<a href="http://texasassessment.gov/technology">http://texasassessment.gov/technology</a>

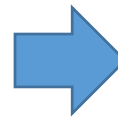
# Network and Technical Infrastructure

- Conduct bandwidth checks.
  - [Online Readiness Tools](#)
  - [Chromebook Online Readiness Tool](#)
  - Develop local policies around use of internet during testing.
- Actively monitor the district's network for bandwidth capacity and device connectivity issues.

# Online Readiness Tools

- Part of the test delivery engine (SOTP), verifies the proper configurations of network devices and network connectivity at the workstation level in order to confirm
  - proper network configuration to connect to the ETS system,
  - that workstations and tablets meet the minimum requirements to deliver the assessment, and
  - sufficient local bandwidth, and wireless access points to deliver test.

The screenshot shows the 'Online Readiness Tools' web application. At the top, it says 'Check your system to see its level of readiness for testing implementation.' Below this, it displays 'Your Operating System: Windows 7' and 'Your Browser Version: Chrome 69.0.3497.100'. The 'System Requirements' section has a link to 'System Requirements (PDF)'. The 'System Check Test' section has a 'Begin Test' button. A large red circle with the word 'GO' is overlaid on the bottom left. On the right, the 'School Capacity Calculator' is visible, with a dropdown menu set to 'Maximum Student Capacity' and a 'CALCULATE' button.



The screenshot shows the 'Online Readiness Tools' web application after a speed test. The 'System Check Test' section now displays a message: 'Your network bandwidth has been calculated at 9 Mbps. Your system can support a maximum of 330 simultaneous test takers. Your system can support a maximum of 247 simultaneous test takers using Text-to-Speech.' Below this, a 'SPEEDTEST' section shows results: 'PING 59 ms', 'DOWNLOAD 9.9 Mbps', and 'UPLOAD 30.4 Mbps'. The 'School Capacity Calculator' remains on the right.

# Chromebook Online Readiness Tool

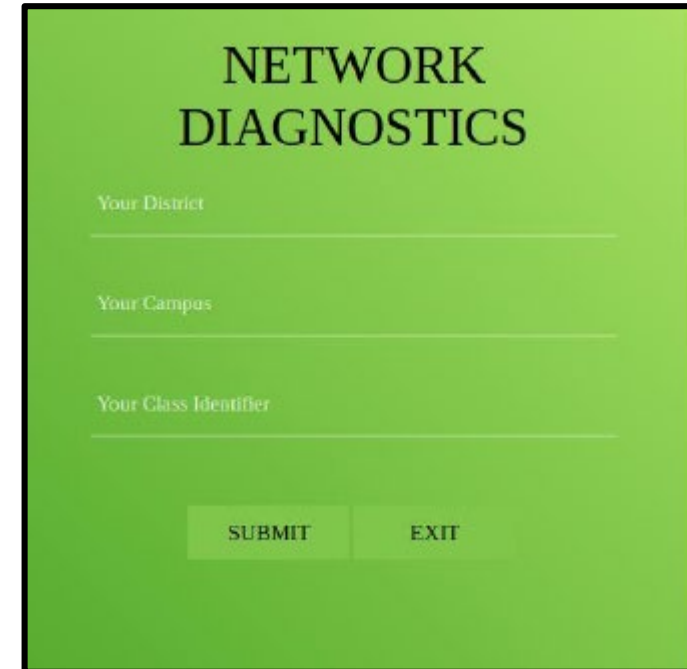
- Used to troubleshoot network related issues for test delivery on Chromebooks ONLY.
  - Detects intermittent connection failures
  - Displays three stages of connection statuses: **Persistent**, **Intermittent** and **Disconnected**
  - Records connection statuses over an extended period of time
  - Uses the Upload to Server ***button*** to send results to ETS
  - **NOTE:** Upload to the ETS Server only if troubleshooting assistance is needed from the Texas Assessment Support Center.

# Chromebook Readiness Tool

To install the tool on a Chromebook, click on the following [link](#).

Results:

- Displays a running graph indicating the connection statuses over a two-hour period
- Records for a maximum of 8 hours

A screenshot of a web form titled "NETWORK DIAGNOSTICS" on a green background. The form contains three input fields: "Your District", "Your Campus", and "Your Class Identifier". Below these fields are two buttons: "SUBMIT" and "EXIT".

NETWORK  
DIAGNOSTICS

Your District

Your Campus

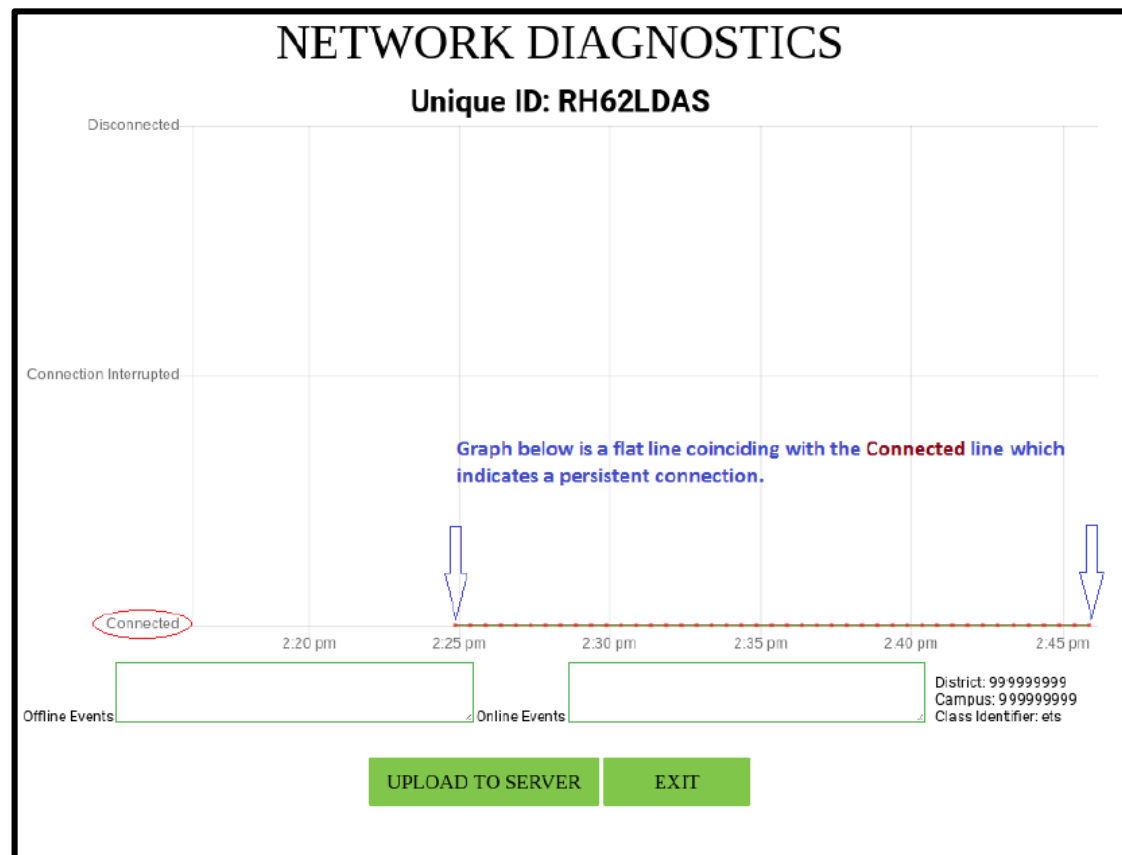
Your Class Identifier

SUBMIT EXIT

# Chromebook Readiness Tool

## Connection Status: **Persistent**

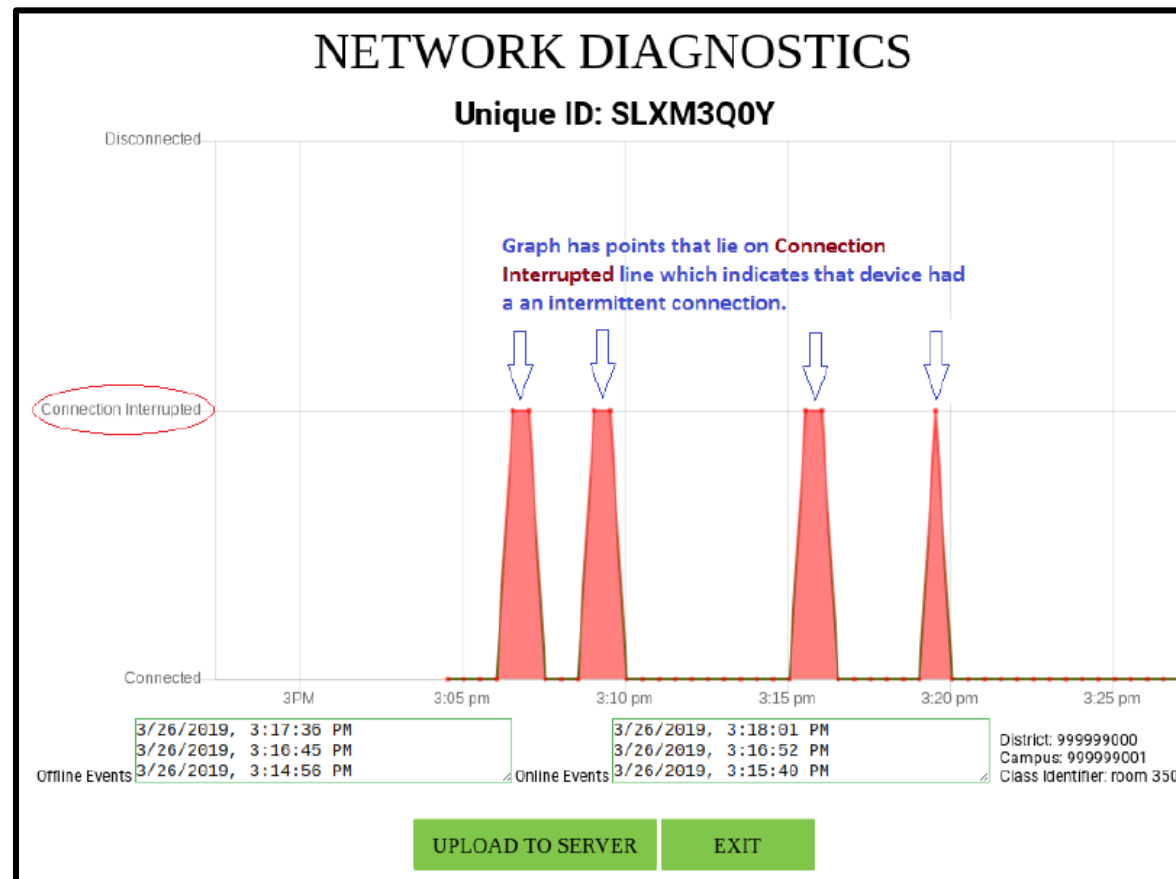
The screenshot below is an example of persistent connection.



# Chromebook Readiness Tool

Connection Status: **Intermittent**

The screenshot below is an example of intermittent connection.

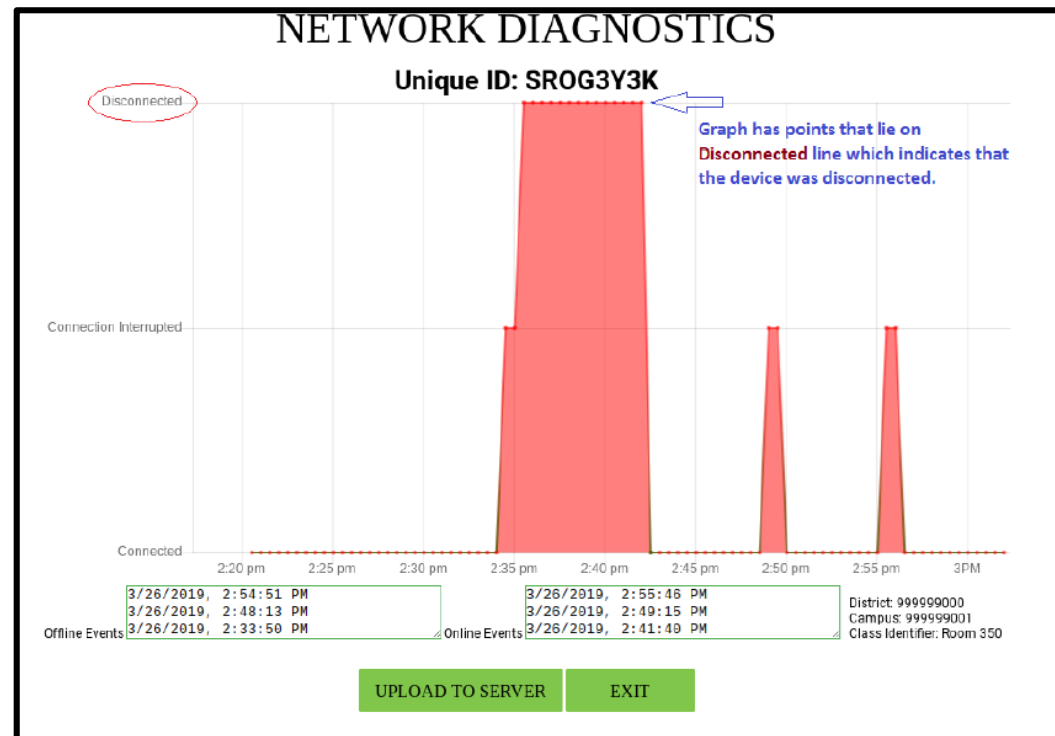




# Chromebook Readiness Tool

## Connection Status: **Disconnected**

The screenshot below is an example showing when connection was lost.



# Bandwidth Checks

- Identify internet bottlenecks or network configuration issues
- Identify maximum number of current online testers supported by local bandwidth

Things to consider:

- How many concurrent Online tests the network can support
- Wireless access points and testing locations
- Location of wi-fi hubs and number of devices connected to each
  - Recommended 1 per room where testing takes place
    - 22-25 testers per access point (>25 tends to lead to problems)
- Wireless access points should be tested and working

# Bandwidth Considerations

- Size of test content (number of items and average size of each item)
  - Low bandwidth: selected-response items
  - High bandwidth: Text To Speech or American Sign Language videos
- Bandwidth competition
  - Reduction of other internet-enabled applications that compete for bandwidth (e.g., attendance, bell time, sending grades)
- Establish and communicate internet use policy during administrations
  - Staff internet use during testing for non-essential work
  - Student mobile devices and internet use during testing

# SOTP Installation

# SOTP Versions

In the Assessment Management System: *Online Testing > Secure Browsers*

- Contains up-to-date browser information and special announcements

STAAR Assessment Management

Students + Online Testing + Orders + Reports + Structure + Admin +

Home / Online Testing / Secure Browsers

## Secure Browsers

**Updates for 2019-2020 Test Administrations** (Updated: August 5, 2019)

Updated versions of the STAAR Online Testing Platform Secure Browser are required to access the STAAR online practice tests, the 2019-2020 interim assessments, and the upcoming STAAR online tests for the 2019-2020 school year. Refer to the current Secure Browser version numbers by platform listed in the table below and ensure all devices used for testing have the correct version installed. The Secure Browsers are available for download at [www.TexasAssessment.gov/Technology](http://www.TexasAssessment.gov/Technology).

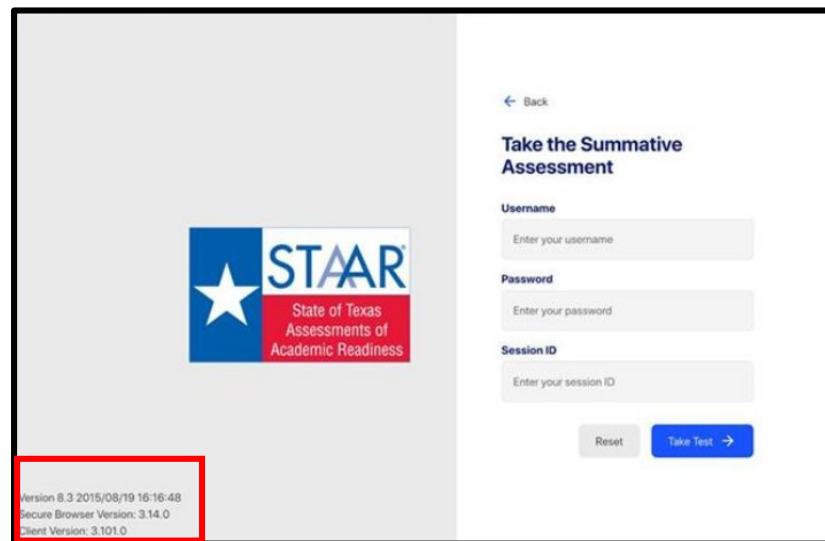
Operating System	Updated Browser Version (Current)
Windows	v3.14.0 (requires uninstall of prior versions) - available August 5, 2019
Mac	v3.14.0 (requires uninstall of prior versions) - available August 5, 2019
Linux	v3.14.0 (requires uninstall of prior versions) - available August 5, 2019
Chromebook	v2.62.0 (1.30.0 in Chrome web store) - (prior version will auto-update) - available August 5, 2019
iOS	v2.75.0 (2.68 in Apple store) - (prior version will auto-update) - available August 5, 2019

NOTES:

- Secure Browsers are available for download at <http://TexasAssessment.gov/administrators/technology/>

# SOTP - Windows

- **Must** uninstall the previous version of the Secure Browser and install the latest version
  - Current version 3.14.0 (Windows)
  - Fast User Switching must be Disabled
  - Window 7 Machines: may need the “Update for Universal C Runtime in Windows” installed



# SOTP - Mac

- **Must** uninstall the previous version of the Secure Browser and install the latest version
  - Current version 3.14.0 (MacOS)
  - Spaces must be disabled in Mission Control
  - VoiceOver should be disabled during testing
  - Must use Managed Installation

# SOTP - Linux

- **Must** uninstall the previous version of the Secure Browser and install the latest version
  - Current version 3.14.0 (Linux)
- NOTE: Installation procedures vary slightly on some versions of Linux based on distribution type.
- Refer to <https://www.linux.com/blog/how-install-software-linux-introduction> for more information.



# SOTP- iOS

- Secure Browsers will automatically update. If Auto-Update is disabled, update via the App Store.
  - Current iOS version is 2.75.0 (2.68 in Apple Store)
  - Turn off all operating system accessibility features during testing:
    - VoiceOver, Zoom, Display Accommodations, Speak Screen, Highlight Content, Typing Feedback, Switch Control, AssistiveTouch, Touch Accommodations, Shake to Undo, Mono Audio, and Audio Volume Balance

# SOTP - iOS

- Enable automatic updates on mobile devices.
- Ensure that Single App Mode enabled and activated.
- Single App Mode prevents students from accessing other applications while testing.
  - locks iPads to the Secure Browser application
  - disables the Home ***button***

# SOTP- Chromebooks

- Current Chromebook version is 2.62.0 (1.30 in Chrome webstore)
- Secure Browser for Chromebook automatically updates to the latest version. If auto-update is disabled, update via the app store.
- Chromebooks with Intel CPUs are recommended over those using ARM CPUs.
- Powerwash Chromebooks and, if possible, disable ChromeOS auto-updates the week prior to the administration.

# SOTP- Chromebooks

## Managed Chromebooks:

- Kiosk applications must be deployed via the Google Admin console as a Chrome kiosk application.
- Disable ChromeVox.

See section [3.2.1 of the Technology Systems Online Documentation](#) for Managed Chromebook Installation Procedures.



# SOTP- Chromebooks

## Managed Chromebooks:

- 2017 and newer Chromebooks require Google managed installation to launch Secure Browser in Kiosk mode.
- The latest production release of Chrome OS from Google, known as "stable channel," has excluded certain Chromebook models, including ASUS Chromebook Flip C100PA, Google Chromebook Pixel (2015), and Acer Chromebook R11. Refer to the [Chromebook blog](#) for additional details.

# SOTP- Chromebooks

## Non-Managed Chromebooks:

- 2017 and newer Chromebooks require Google managed installation and a [Chrome Enterprise or Chrome Education kiosk device management license](#) to run in Kiosk mode.
- Google does not support kiosk mode for non-managed 2017 and newer Chromebooks.
- See section [3.2.2 of the Technology Systems Online Documentation](#) for Non-Managed Chromebook Installation Procedures.

**NOTE:** The SOTP cannot detect or shut down certain operating system accessibility features such as ChromeVox. Using these operating system features provides an unapproved accommodation that may affect the validity of an assessment.

# Guidance for Technology Staff

# Guidance for Technology Staff

Coordinate with the DTC:

- Logistics
- Roles & responsibilities
- Testing Device setup
- System platforms (TOMS, SOTP)
- Issue escalation and procedures
- Technical support services and contact information
- Escalation process and communication plan



# Guidance for Technology Staff

Prior to the administration, technology staff should:

- Disable auto update on all devices used for testing.
- Verify that the OS and drivers are current.
- Perform practice tests more frequently if, using virtualization or N-Computing.
- Shut down all applications on devices prior to launching the Secure Browser.

# Guidance for Technology Staff

## Wi-Fi

- Tune up wi-fi for more Chromebooks and laptops.
- Increase the number of Wireless Access Points.
- Check for wi-fi channel conflicts.
- Update firmware for WAPs and all network equipment.

# Guidance for Technology Staff

## Tips for Minimizing Impact on Wireless Networks

- Install additional WAPs to decrease potential for overload with too many student devices.
- Locate testing devices as close to a WAP as possible.
- Reduce wi-fi interference from structures and furniture such as brick, concrete, and metal. These materials can impact speed or even block wi-fi connectivity.
- Check for other wi-fi networks that may be interfering with the district's network.
- Check for electronic devices that may be using the same 2.4GHz or 5GHz frequencies to connect even if they are not connected to your wi-fi network. This can include cordless phones, Bluetooth devices, and other mobile devices.

# Guidance for Technology Staff

Right before testing:

- Disable low end wireless protocols that are not being used.
- Power off students' mobile devices to avoid potential interference during testing.
- Ask classrooms to stagger logins to minimize initial loading time.

For example, in a class of 30 students, the proctor can have 10 students log in each minute, decreasing the strain on the network.

# Guidance for Technology Staff

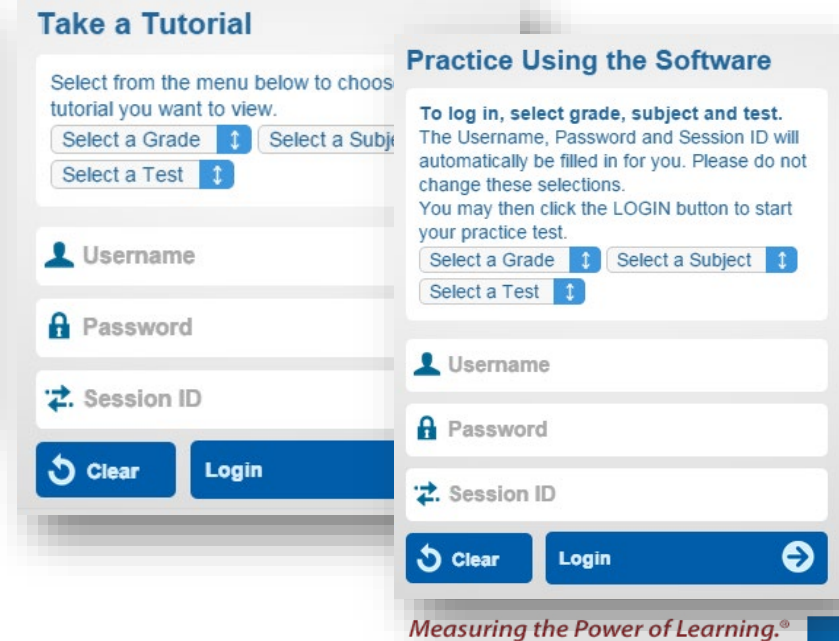
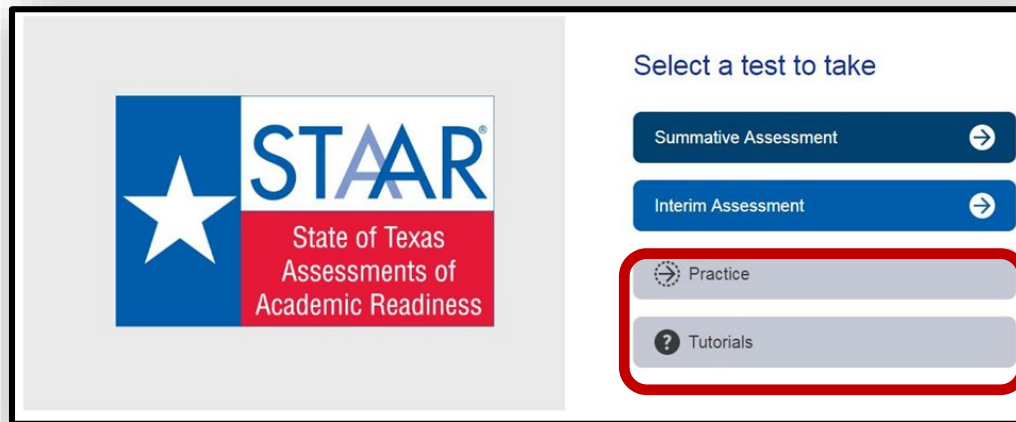
- Know your approach.
  - Device management software products available for pushing out installations/updates (e.g., JAMF)
  - Restart Everything- (Laptops, Desktops, Routers, etc.).
- Start early.
  - Enable software auto updates ahead of testing.
  - Detailed installation instructions for each operating system is available in the [STAAR Online Testing Platform Technology Guide](#).

# Guidance for Technology Staff

- Ensure updated secure browser is installed and functioning on all devices ahead of testing.
- Suspend OS and software updates once system functionality is verified.
- To prevent test day issues when launching the secure browser verify that third party software systems (i.e. NetSpective) and anti-virus software are disabled on all devices used for testing.
- Keep backup devices on hand.

# Guidance for Technology Staff

- Administer tutorials, practice tests and/or Interims prior to test day.
  - Work with the DTC to have students take Practice Tests, Tutorials and Interim tests.
  - Use the opportunity to monitor the district's network and bandwidth.



# Guidance for Technology Staff

- Verify the secure browser versions on all devices that will be used for testing listed on test login page of STAAR Online Testing Platform.

← Back

## Take the Summative Assessment

**Username**  
Enter your username

**Password**  
Enter your password

**Session ID**  
Enter your session ID

Reset Take Test →

Version 8.3 2015/08/19 16:16:48  
Secure Browser Version: 3.14.0  
Client Version: 3.101.0



# Trainings

# Upcoming Webinars

Visit <http://www.TexasAssessment.gov/administrators/training/> to register for upcoming trainings and view past webinars.

- **Online Testing Preparation for December 2019**
  - October 24, 2019, 1:30 p.m. - 3:00 p.m. CT.
  - Register [here](#)
- **Overview of the STAAR Online Testing Platform**
  - October 29, 2019 1:30 pm
  - Register [here](#)

# Questions

# Questions?



# Customer Support

Texas Assessment Support Center

Monday–Friday

8:00 a.m.–5:00 p.m. (CT)

855–333–7770

[STAAREOC@ets.org](mailto:STAAREOC@ets.org) or [STAAR3–8@ets.org](mailto:STAAR3–8@ets.org)